

Mission to Titan

To discuss ...

- The pictures you saw, of river channels and lake beds, are some of the most amazing pictures ever seen in the history of space exploration. Where were they taken?
 - On "Titan," the largest moon of Saturn.
- Until we landed on Titan, we couldn't see the surface very clearly. Why not?
 - It has a very thick "orange" atmosphere. (It's actually thicker than Earth's).
- It looked a lot like Earth, but how is Titan different from Earth?
 - It's "orange."
 - Instead of rock, it's made of ice.
 - Instead of liquid water, liquid methane flows in the rivers.
 - The temperature is 300 degrees below zero. (– 300° F.)
- Did the story say whether we have discovered any life on Titan?
 - No, and we don't expect to. It's too cold.
- The story talks about visiting many other worlds. Do you think all these worlds will be in our own solar system?
 - Probably not. Other stars have planets, too, or other "solar systems."
(We've just begun to find some of these other solar systems with our telescopes.)
There are billions of other stars, so there will be lots of other solar systems to explore.
- How do you think landing on Titan makes scientists feel about exploring other planets?
 - They are very excited, because Titan has shown us another world with rain and rivers and lakes. Perhaps that means lots of other worlds have weather, too, and perhaps other things in common with the Earth.

NOTE: The landing on Titan was a true international space mission. The small space probe that landed on Titan was built by the European Space Agency. It was carried to Saturn by the Cassini spacecraft, which was built by NASA.